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GROUP 1700

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/669,238 Filing Date: September 24, 2003 Appellant(s): CREIGHTON ET AL.

Everett G. Diederiks, Jr. For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 9/13/06 appealing from the Office action mailed 4/4/06.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,024,996	RINGE	6-1991
6,242,033	SANDER	6-2001

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6,149,965 van LANGERICH et al. 11-2000

NEW GROUND(S) OF REJECTION

The following ground(s) of rejection are applicable to the appealed claims:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made:

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-11,14-24,28-30, 43-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ringe (5024996) in view of Sander.

Ringe discloses a cooked cereal dough and a method of preparing ready to eat cereals from the dough. The cereal contains at least 3g/oz-6g/oz of soluble fiber. The dough comprises about 20-80% of starchy cereal component, 10-25% soluble fiber, and insoluble fiber. The source of insoluble fiber is selected from wheat bran, corn bran, rice bran etc.. The dough can also comprise .1-10% supplemental fiber such as carboxymethyl cellulose and .1-30% sugar. The fat content of the dough is less than

10% and is preferably free of externally applied fat or oil. The dough further comprises adjuvant materials such as high potency sweetener, about .1-2% salt and malt flavor. The cooked has a moisture content of 20-50%. The dough is formed into pellets which are partially dried and can then be flaked. The pieces are dried. The flakes can be toasted and partially puffed. The flakes can be sugar coated and/or topically vitamin fortified. The pieces have a water activities from about .1-20 reflecting moisture contents ranging from about 1-3%. The flakes have thickness of .018-.022 inch. (see col. 3 lines 43-53, col. 5 lines 15-55, col. 6l ines 3-54, columns 7-8 and the examples.

Ringe does not disclose adding protein in the amount and the type of protein claimed, the particle sizes of the fiber, puffing by frying, adding protein after cooking and the high potency sweetener as claimed.

Sander discloses a high protein cereal. The cereal has a minimum protein of 20%. The protein sources include soy protein, corn zein, protein from any recognized cereal sources and mixtures thereof. (see col. 2 lines 43-50)

It would have been obvious to one skilled in the art to add protein to the Ringe cereal as taught by Sander to make a high protein cereal to enhance the nutritional profile of the product. It would have been obvious to add protein in the amount taught by Sander or less depending on the nutrition desired. The proper amount can readily be determined through routine experimentation to obtain the most optimum product with respect to taste and nutrition. It would also have been obvious to add the protein after cooking depending on the nature wanted in the protein. If it is desired that the protein not be denatured, then it would have been obvious to add it after cooking. The type of

protein selected would have been an obvious matter of preference depending on the taste, flavor and concentration of protein desired. It would have been obvious to one skilled in the art to determine the appropriate fiber size to give optimum texture. The size selected is an effective-result variable which would have within the determination of one in the art. It would have been obvious to use high potency sweetener to reduce the caloric content of the product. All the sweetener claimed are well known, it would have been obvious to one skilled in the art to select any known high potency sweetener. It would have been obvious to one skilled in the art to make puffed cereal because it is a well-known form of cereal product. Puffing by frying is well known in the art.

Claims 12-13,25-27,31-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ringe in view of Sander as applied to claims 1-11,14-24,28-30, 43-48 above, and further in view of van Lengerich et al.

Ringe does not disclose adding inulin, adding inulin in the sugar coating, adding inulin after cooking and the amount of inulin in the coating.

Van Lengerich et al disclose cereal products containing inulin as the soluble fiber; the inulin can be incorporated into the dough and topically applied. The inulin provides fiber fortified cereal with taste and texture that are indistinguishable from cereal without fiber. The inulin forms a clear, almost undectectable coating; thus, it is especially suitable for topical coating. (see col. 2 lines 40-62, col. 4 lines 29-31)

Ringe teaches adding soluble fiber; it would have been obvious to select inulin as the soluble fiber for the benefits taught by van Lengerich et al. It would also have been obvious to add inulin in the topical coating the advantage taught by van Lengerich. The

amount used depends on the fiber content wanted and can readily be determined by one skilled in the art. Since inulin does not require cooking, it would have been obvious to add the fiber at any stage in the process; this is a matter of preference and is well within the determination of one skilled in the art.

(10) Response to Argument

On page 6 of the appeal brief, appellant argues the burden is not on the applicant to answer why the references cannot be combined, but rather on the examiner to show the proper motivation to combine. This argument is not persuasive. The rejection has set forth a proper position of why the combination of Ringe and Sander would have been obvious to one skilled in the art. The motivation of combining Sander with Ringe would have been to make the food product more nutritious. Sander discloses a high protein cereal; the cereal has a niminum of 20% protein. Sander also teaches other additives such as betaglucans, soy beans, inulin, FOS and dietary fibers can be added. Many of the additives disclosed by Sander are fiber materials in addition to the teaching of adding dietary fiber. Thus, the high protein cereal of Sander also contains fiber; this indicates that fiber and protein are totally compatible in a cereal product. Thus, it would have been obvious to one skilled in the art to add a high amount of protein to the Ringe cereal product when desiring a product having high fiber and protein content. Such product is more nutritious than either one of Ringe or Sander alone because it contains both high fiber and high protein. Adding ingredient for it known purpose would have been obvious to one skilled in the art. A combination of protein and fiber is suggested in the art because Sander discloses fiber additives can also be added to the high protein

have been obvious to one skilled in the art.

cereal. A 103 rejection must take into consideration the skill of one in the art and what would have been obvious to such person in view of the teaching of the prior art. Having the teaching of Sander and Ringe, it would have been obvious to one to make a cereal product containing both fiber and protein because such combination is taught in the prior art. Adding ingredients to make food products more nutritious is not uncommon in food manufacturing. Many food products are enriched with nutrients; for example, there are juice enriched with calcium, vitamins etc.., bread enriched with protein, fiber, cake enriched with fiber, protein etc.., just to name a few examples. The proper motivation has been established. While appellant argues there is no reason to combine, appellant has not set forth any reasoning why the combination of Sander and Ringe would not

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On page 7 of the appeal brief, appellant argues Sanders teaches away from the present invention by actually providing high protein in combination with only low fiber as shown in Example 4. This argument is not persuasive. Example 4 is only an illustrated embodiment of Sanders; it is not the whole teaching of Sanders. Sander teaches additives such as betaglucans, inulin, dietary fiber can be added and does not restrict the amount. In addition to the teaching of adding dietary fiber, additives such as betaglucans, inulin are also dietary fiber material. Thus, the addition of fiber is totally compatible with the addition of protein. One would add an amount of fiber depending on the fiber content wanted in the product and a high fiber content is known in the art as taught by Ringe. Appellant also argues on page 8 that none of the prior art discloses the combination of multiple forms of fiber and plant protein ingredient in the specific

ranges claimed. The basis of this argument is perplexing because Ringe discloses the exact multiple forms of fiber in the amounts claimed. Ringe discloses in the abstract the cereals contain about 10-15% soluble fiber and about 5-15% insoluble fiber. Both of these ranges fall with the claimed ranges for the fibers. Sander discloses the cereal contains a minimum of 20% protein which also falls within the claimed range. On page 9, appellant comments that the rejection has stated that the amount of protein to add to the cereal of Sander could be readily determined through routine experimentation. It is believed appellant read the rejection out of context. The amount disclosed by Sander is within the range claimed. It is stated in the rejection that it is obvious one skilled in the can use an amount of protein that is lower than what Sander discloses depending on the nutritious and taste desired. Selecting an ingredient and the amount in food production is a matter of choice based on preference of nutrition versus taste, flavor and texture. Appellant comments that the addition of high amounts of fiber as set forth in Ringe would yield a cereal product unlike any of the examples set forth in either the Ringe or Sander references. This statement reflects the obviousness of the claimed method of combining known ingredients with expected result. Of course, a cereal that has high amount of protein and high amount of fiber would be different from cereal

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On page 10-11, appellant comments that the limitation of claim 8 has not been addressed in the rejection. In the rejection dated 9/26/05, it was stated that "the type of protein selected would have been a matter of preference depending on the taste, flavor and concentration of protein desired". Appellant has not taken any stand to this position

which is high in fiber or high in protein alone; but, the result is not unexpected.

and simply states that "it appears that no prior art has actually been applied". Sander teaches on column 2 lines 49-50 that "protein from any recognized cereal sources as well as mixtures thereof" can be used. Wheat gluten is a very well known cereal protein; thus, it would have been obvious to select wheat gluten has the protein source; this would have been an obvious matter of choice.

Appellant makes the same comment with respect to claim 25. The limitation of claim 25 is addressed with respect to the van Lengerich et al reference which teaches applying inulin as a topical coating. Claim 25 was amended subsequent to the first office action and the inclusion of claim 25 in the rejection over Ringe in view of Sander was a typographical error. The examiner's answer includes new ground of rejection to address the deficiency; however, the issue remains the same.

With regard to appellant's comment about claims 37 and 38, it was a typographical error in the rejection statement in the final office action; claims 37-38 should be grouped with claim 36. However, the limitations of the claims are addressed in the rejection because Ringe discloses the insoluble fiber material can be wheat bran, corn bran, rice bran, oat bran, rye ban, barley and mixture thereof (col. 6 lines 5-10). With respect to claim 38, Ringe discloses the soluble fiber includes supplemental soluble fiber source in amount of .1-10% and the fiber include carboxymethyl cellulose (see col. 5 lines 50-55). The examiner's answer includes a new ground of rejection to address the deficiency; however, the issue remains the same.

With respect to claims 12,13,31 and 32, appellant argues the rejection of these claims based on van Lengerich et al in combination with Ringe and Sander is based on

hindsight. While appellant argues that the rejection is based on hindsight, appellant does not set forth reasoning to demonstrate that the rejection is hindsight. Ringe teaches supplemental soluble fiber can be added and the soluble fiber source can be selected from a variety of source. Van Lengerich et al disclose the same type of product as Ringe and they teach to fortified the cereal with supplemental inulin which is a soluble fiber. Van Lengerich et al teach that cereal fortified with soluble fiber inulin is organoleptically desirable and indistinguishable from their unfortified counterparts. Thus, one would be motivated to select inulin as the supplemental soluble fiber for the reason taught by van Lengerich et al. Appellant does not argue why this would not have been obvious.

Appellant makes the same argument with respect to claims 26 and 27. The argument is not persuasive for the same reason as set forth with respect to claims 12,13,31 and 32.

With respect to claims 33-36 and 39-41, appellant argues even if inulin is added as the soluble source, the fiber would be added commensurate with the teachings in Ringe which is prior to cooking of the dough. This argument is not persuasive. Ringe teaches the incorporation of the fiber source prior to cooking; however, the fibers disclosed by Ringe are the types that require cooking whereas inulin is disclosed by van Lengerich et al. to not require cooking. Van Lengerich et al. disclose on column 6 lines 43-48, " it is an advantage herein that inulin can be subjected to but does not require a cooking step, … the inulin can be added subsequent to the formation of a cooked cereal dough". Thus, the use of inulin as the soluble fiber gives versatility in the processing

mechanism and it would have been obvious to select the addition of the inulin after cooking because this is a known alternative as taught by van Lengerich et al. Since inulin does not require cooking and can be added to the dough before or after cooking as taught by van Lengerich, the selection of the time of addition would have been an obvious matter of choice as recognized in van Lengerich et al. because they disclose at column 6 line 62 through column 7 lines 16, embodiments in which inulin is added before cooking, inulin is added after cooking and inuling is added both before and after cooking.

In conclusion, the cereal dough disclosed by Ringe comprise the starchy ingredient, insoluble fiber and soluble fiber in amounts falling within the ranges claimed. The cereal dough disclosed by Ringe lacks the plant protein ingredient. The cereal dough disclosed by Sander comprises protein in amount falling within the range claimed. Sander also teaches to add other ingredients which are fiber materials and dietary fiber to the dough. The Sander disclosure shows fiber can be added to cereal dough containing protein. Thus, it would have been obvious to add protein in the amount taught by Sander to the Ringe dough to make cereal dough which is more nutritious by containing both high protein and high fiber.

For the above reasons, it is believed that the rejection should be sustained.

This examiner's answer contains a new ground of rejection set forth in section (9) above. Accordingly, appellant must within **TWO MONTHS** from the date of this answer exercise one of the following two options to avoid *sua sponte* **dismissal of the appeal** as to the claims subject to the new ground of rejection:

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(1) **Reopen prosecution.** Request that prosecution be reopened before the primary examiner by filing a reply under 37 CFR 1.111 with or without amendment, affidavit or other evidence. Any amendment, affidavit or other evidence must be relevant to the new grounds of rejection. A request that complies with 37 CFR 41.39(b)(1) will be entered and considered. Any request that prosecution be reopened will be treated as a request to withdraw the appeal.

(2) **Maintain appeal.** Request that the appeal be maintained by filing a reply brief as set forth in 37 CFR 41.41. Such a reply brief must address each new ground of rejection as set forth in 37 CFR 41.37(c)(1)(vii) and should be in compliance with the other requirements of 37 CFR 41.37(c). If a reply brief filed pursuant to 37 CFR 41.39(b)(2) is accompanied by any amendment, affidavit or other evidence, it shall be treated as a request that prosecution be reopened before the primary examiner under 37 CFR 41.39(b)(1).

Extensions of time under 37 CFR 1.136(a) are not applicable to the TWO MONTH time period set forth above. See 37 CFR 1.136(b) for extensions of time to reply for patent applications and 37 CFR 1.550(c) for extensions of time to reply for exparte reexamination proceedings.

Respectfully submitted,

Lien Tran

A Technology Center Director or designee must personally approve the new ground(s) of rejection set forth in section (9) above by signing below:

1//1/

Milton Cano

MILTON I. CANO

SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 1700

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Lien Tran

PRIMARY EXAMINED

Conferees:

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